CRF Errors Edited by the STIC Systems Branch

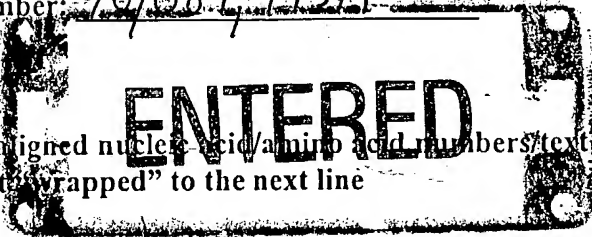Serial Number: _10/082,993A_ CRF Edit Date: _8/9/04_
Edited by: _fr_

ENTERED

____ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

____ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

____ Other: _Sequence 34 - inserted <220>_

_____

_____

Revised 09/09/2003

RAW SEQUENCE LISTING   DATE: 08/09/2004
PATENT APPLICATION: US/10/087,993A   TIME: 15:42:58

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\08092004\J087993A.raw**

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 3 <110> APPLICANT: Ullrich, Axel
 4        Aoki, Naohito
 5        Kim, Yeong Woong
 6        Wang, Hong Yang
 7        Chen, Zhengjun
 8        Nayler, Oliver
 9        Kharitonenkov, Alexei
12 <120> TITLE OF INVENTION: NOVEL PTP-20, PCP-2, BDP1, CLK, AND SIRP PROTEINS
13        AND RELATED PRODUCTS AND METHODS
15 <130> FILE REFERENCE: 034536-1481
17 <140> CURRENT APPLICATION NUMBER: 10/087,993A
18 <141> CURRENT FILING DATE: 2002-03-05
20 <150> PRIOR APPLICATION NUMBER: 08/877,150
21 <151> PRIOR FILING DATE: 1997-06-17
23 <150> PRIOR APPLICATION NUMBER: 60/023,485
24 <151> PRIOR FILING DATE: 1996-11-13
26 <150> PRIOR APPLICATION NUMBER: 60/030,860
27 <151> PRIOR FILING DATE: 1996-11-13
29 <150> PRIOR APPLICATION NUMBER: 60/030,964
30 <151> PRIOR FILING DATE: 1996-11-15
32 <150> PRIOR APPLICATION NUMBER: 60/034,286
33 <151> PRIOR FILING DATE: 1996-12-19
35 <150> PRIOR APPLICATION NUMBER: 60/019,629
36 <151> PRIOR FILING DATE: 1996-06-17
38 <160> NUMBER OF SEQ ID NOS: 41
40 <170> SOFTWARE: PatentIn Ver. 3.2
42 <210> SEQ ID NO: 1
43 <211> LENGTH: 6
44 <212> TYPE: PRT
45 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
50 <220> FEATURE:
51 <221> NAME/KEY: MOD_RES
52 <222> LOCATION: (3)
53 <223> OTHER INFORMATION: unspecified amino acid
55 <220> FEATURE:
56 <221> NAME/KEY: MOD_RES
57 <222> LOCATION: (5)
58 <223> OTHER INFORMATION: unspecified amino acid
60 <400> SEQUENCE: 1
61 Phe Trp Xaa Met Xaa Trp
62 1               5
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RAW SEQUENCE LISTING   DATE: 08/09/2004
PATENT APPLICATION: US/10/087,993A TIME: 15:42:58

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\08092004\J087993A.raw**

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 66 <211> LENGTH: 7
 67 <212> TYPE: PRT
 68 <213> ORGANISM: Artificial Sequence
 70 <220> FEATURE:
 71 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
 73 <220> FEATURE:
 74 <221> NAME/KEY: MOD_RES
 75 <222> LOCATION: (6)
 76 <223> OTHER INFORMATION: Ser, Ile or Val
 78 <400> SEQUENCE: 2
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 83 <210> SEQ ID NO: 3
 84 <211> LENGTH: 6
 85 <212> TYPE: PRT
 86 <213> ORGANISM: Artificial Sequence
 88 <220> FEATURE:
 89 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
 91 <400> SEQUENCE: 3
 92 Phe Leu Glu Arg Leu Glu
 93    1               5
 96 <210> SEQ ID NO: 4
 97 <211> LENGTH: 6
 98 <212> TYPE: PRT
 99 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
104 <220> FEATURE:
105 <221> NAME/KEY: MOD_RES
106 <222> LOCATION: (3)
107 <223> OTHER INFORMATION: unspecified amino acid
109 <220> FEATURE:
110 <221> NAME/KEY: MOD_RES
111 <222> LOCATION: (5)
112 <223> OTHER INFORMATION: unspecified amino acid
114 <400> SEQUENCE: 4
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119 <210> SEQ ID NO: 5
120 <211> LENGTH: 482
121 <212> TYPE: PRT
122 <213> ORGANISM: Mus musculus
124 <400> SEQUENCE: 5
125 Met Arg His Ser Lys Arg Thr Tyr Cys Pro Asp Trp Asp Glu Arg Asp
126    1               5                   10                  15
128 Trp Asp Tyr Gly Thr Trp Arg Ser Ser Ser His Lys Arg Lys Lys
129                20                  25                  30
131 Arg Ser His Ser Ser Ala Arg Glu Gln Lys Arg Cys Arg Tyr Asp His
```

```
132            35                    40                    45
134 Ser Lys Thr Thr Asp Ser Tyr Tyr Leu Glu Ser Arg Ser Ile Asn Glu
135       50                    55              60
137 Lys Ala Tyr His Ser Arg Arg Tyr Val Asp Glu Tyr Arg Asn Asp Tyr
138 65                    70                    75                    80
140 Met Gly Tyr Glu Pro Gly His Pro Tyr Gly Glu Pro Gly Ser Arg Tyr
141               85                    90                    95
143 Gln Met His Ser Ser Lys Ser Ser Gly Arg Ser Gly Arg Ser Ser Tyr
144               100                   105                   110
146 Lys Ser Lys His Arg Ser Arg His His Thr Ser Asp His His Ser His
147       115                   120                   125
149 Gly His Ser His Arg Arg Lys Arg Ser Arg Ser Val Glu Asp Asp Glu
150       130                   135                   140
152 Glu Gly His Leu Ile Cys Gln Ser Gly Asp Val Leu Ser Ala Arg Tyr
153 145                   150                   155                   160
155 Glu Ile Val Asp Thr Leu Gly Glu Gly Ala Phe Gly Lys Val Val Glu
156               165                   170                   175
158 Cys Ile Asp His Lys Val Gly Gly Arg Arg Val Ala Val Lys Ile Val
159               180                   185                   190
161 Lys Asn Val Asp Arg Tyr Cys Glu Ala Ala Gln Ser Glu Ile Gln Val
162       195                   200                   205
164 Leu Glu His Leu Asn Thr Thr Asp Pro His Ser Thr Phe Arg Cys Val
165       210                   215             220
167 Gln Met Leu Glu Trp Phe Glu His Arg Gly His Ile Cys Ile Val Phe
168 225                   230                   235                   240
170 Glu Leu Leu Gly Leu Ser Thr Tyr Asp Phe Ile Lys Glu Asn Ser Phe
171               245                   250                   255
173 Leu Pro Phe Arg Met Asp His Ile Arg Lys Met Ala Tyr Gln Ile Cys
174               260                   265                   270
176 Lys Ser Val Asn Phe Leu His Ser Asn Lys Leu Thr His Thr Asp Leu
177       275                   280                   285
179 Lys Pro Glu Asn Ile Leu Phe Val Lys Ser Asp Tyr Thr Glu Ala Asn
180       290                   295                   300
182 Pro Lys Met Lys Arg Asp Glu Arg Thr Ile Val Asn Pro Asp Ile Lys
183 305                   310                   315                   320
185 Val Val Asp Phe Gly Ser Ala Thr Tyr Asp Asp Glu His His Ser Thr
186               325                   330                   335
188 Leu Val Ser Thr Arg His Tyr Arg Ala Pro Glu Val Ile Leu Ala Leu
189               340                   345                   350
191 Gly Trp Ser Gln Pro Cys Asp Val Trp Ser Ile Gly Cys Ile Leu Ile
192       355                   360                   365
194 Glu Tyr Tyr Leu Gly Phe Thr Val Phe Pro Thr His Asp Ser Arg Glu
195 370                   375                   380
197 His Leu Ala Met Met Glu Arg Ile Leu Gly Pro Leu Pro Lys His Met
198 385                   390                   395                   400
200 Ile Gln Lys Thr Arg Lys Arg Arg Tyr Phe His His Asp Arg Leu Asp
201       405                   410                   415
203 Trp Asp Glu His Ser Ser Ala Gly Arg Tyr Val Ser Arg Arg Cys Lys
204       420                   425                   430
```

```
206 Pro Leu Lys Glu Phe Met Leu Ser Gln Asp Ala Glu His Glu Phe Leu
207         435             440             445
209 Phe Asp Leu Val Gly Lys Ile Leu Glu Tyr Asp Pro Ala Lys Arg Ile
210         450             455             460
212 Thr Leu Lys Glu Ala Leu Lys His Pro Phe Phe Tyr Pro Leu Lys Lys
213 465                 470             475                 480
215 His Thr
219 <210> SEQ ID NO: 6
220 <211> LENGTH: 27
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Primer
227 <400> SEQUENCE: 6
228 ctctgtgtcc acagcagtgc tggctgt                                    27
231 <210> SEQ ID NO: 7
232 <211> LENGTH: 7
233 <212> TYPE: PRT
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
239 <400> SEQUENCE: 7
240 His Arg Asp Leu Ala Ala Arg
241   1               5
244 <210> SEQ ID NO: 8
245 <211> LENGTH: 6
246 <212> TYPE: PRT
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
252 <220> FEATURE:
253 <221> NAME/KEY: MOD_RES
254 <222> LOCATION: (2)
255 <223> OTHER INFORMATION: Val or Met
257 <220> FEATURE:
258 <221> NAME/KEY: MOD_RES
259 <222> LOCATION: (5)
260 <223> OTHER INFORMATION: Tyr or Phe
262 <400> SEQUENCE: 8
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264   1               5
267 <210> SEQ ID NO: 9
268 <211> LENGTH: 28
269 <212> TYPE: DNA
270 <213> ORGANISM: Artificial Sequence
272 <220> FEATURE:
273 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Primer
275 <400> SEQUENCE: 9
276 cgggatccct tcgccttgca gctttgtc                                   28
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RAW SEQUENCE LISTING   DATE: 08/09/2004
PATENT APPLICATION: **US/10/087,993A**   TIME: 15:42:58

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\08092004\J087993A.raw**

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279 <210> SEQ ID NO: 10
280 <211> LENGTH: 30
281 <212> TYPE: DNA
282 <213> ORGANISM: Artificial Sequence
284 <220> FEATURE:
285 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Primer
287 <400> SEQUENCE: 10
288 cggaattcct agactgatac agtctgtaag                      30
291 <210> SEQ ID NO: 11
292 <211> LENGTH: 6
293 <212> TYPE: PRT
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
299 <400> SEQUENCE: 11
300 Asp Leu Lys Pro Glu Asn
301    1              5
304 <210> SEQ ID NO: 12
305 <211> LENGTH: 6
306 <212> TYPE: PRT
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Peptide
312 <400> SEQUENCE: 12
313 Ala Met Met Glu Arg Ile
314    1              5
317 <210> SEQ ID NO: 13
318 <211> LENGTH: 30
319 <212> TYPE: DNA
320 <213> ORGANISM: Artificial Sequence
322 <220> FEATURE:
323 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Primer
325 <400> SEQUENCE: 13
326 tatagcggcc gctagactga tacagtctgt                      30
329 <210> SEQ ID NO: 14
330 <211> LENGTH: 32
331 <212> TYPE: DNA
332 <213> ORGANISM: Artificial Sequence
334 <220> FEATURE:
335 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Primer
337 <400> SEQUENCE: 14
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341 <210> SEQ ID NO: 15
342 <211> LENGTH: 39
343 <212> TYPE: DNA
344 <213> ORGANISM: Artificial Sequence
346 <220> FEATURE:
347 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Primer
349 <400> SEQUENCE: 15
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/09/2004
PATENT APPLICATION: US/10/087,993A   TIME: 15:42:59

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\08092004\J087993A.raw**

se Note:
of n and/or Xaa have been detected in the Sequence Listing. Please review the
ence Listing to ensure that a corresponding explanation is presented in the <220>
223> fields of each sequence which presents at least one n or Xaa.

:1; Xaa Pos. 3,5
:2; Xaa Pos. 6
:4; Xaa Pos. 3,5
:8; Xaa Pos. 2,5

VERIFICATION SUMMARY
PATENT APPLICATION: **US/10/087,993A**

DATE: 08/09/2004
TIME: 15:42:59

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\08092004\J087993A.raw**

1 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
9 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
15 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0

IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/087,993A

DATE: 08/06/2004
TIME: 14:12:09

Input Set : **A:\Sequence Listing.app**
Output Set: **N:\CRF4\08062004\J087993A.raw**

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 3 <110> APPLICANT: Ullrich, Axel
 4        Aoki, Naohito
 5        Kim, Yeong Woong
 6        Wang, Hong Yang
 7        Chen, Zhengjun
 8        Nayler, Oliver
 9        Kharitonenkov, Alexei
12 <120> TITLE OF INVENTION: NOVEL PTP-20, PCP-2, BDP1, CLK, AND SIRP PROTEINS
13        AND RELATED PRODUCTS AND METHODS
15 <130> FILE REFERENCE: 034536-1481
17 <140> CURRENT APPLICATION NUMBER: 10/087,993A
18 <141> CURRENT FILING DATE: 2002-03-05
20 <150> PRIOR APPLICATION NUMBER: 08/877,150
21 <151> PRIOR FILING DATE: 1997-06-17
23 <150> PRIOR APPLICATION NUMBER: 60/023,485
24 <151> PRIOR FILING DATE: 1996-11-13
26 <150> PRIOR APPLICATION NUMBER: 60/030,860
27 <151> PRIOR FILING DATE: 1996-11-13
29 <150> PRIOR APPLICATION NUMBER: 60/030,964
30 <151> PRIOR FILING DATE: 1996-11-15
32 <150> PRIOR APPLICATION NUMBER: 60/034,286
33 <151> PRIOR FILING DATE: 1996-12-19
35 <150> PRIOR APPLICATION NUMBER: 60/019,629
36 <151> PRIOR FILING DATE: 1996-06-17
38 <160> NUMBER OF SEQ ID NOS: 41
40 <170> SOFTWARE: PatentIn Ver. 3.2
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Does Not Comply Corrected Diskette Needed

ERRORED SEQUENCES

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1206 <211> LENGTH: 1430
1207 <212> TYPE: PRT
1208 <213> ORGANISM: Unknown Organism          ← insert <220>
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1209 <223> OTHER INFORMATION: Description of Unknown Organism: Mammalian PCP-2
1210        sequence
E↺le 1212 <400> SEQUENCE: 34
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1214  1               5                  10                  15
1216 Ala Pro Glu Thr Glu Thr Pro Ala Ala Gly Cys Thr Phe Glu Glu Ala
1217              20                  25                  30
1219 Ser Asp Pro Ala Val Pro Cys Glu Tyr Ser Gln Ala Gln Tyr Asp Asp
```

```
1220            35                    40                    45
1222 Phe Gln Trp Glu Gln Val Arg Ile His Pro Gly Thr Arg Ala Pro Ala
1223       50                    55                    60
1225 Asp Leu Pro His Gly Ser Tyr Leu Met Val Asn Thr Ser Gln His Ala
1226 65                    70                    75                    80
1228 Pro Gly Gln Arg Ala His Val Ile Phe Gln Ser Leu Ser Glu Asn Asp
1229                85                    90                    95
1231 Thr His Cys Val Gln Phe Ser Tyr Phe Leu Tyr Ser Arg Asp Gly Thr
1232                100                   105                   110
1234 Gly Gly Thr Leu Arg Val Tyr Val Arg Val Asn Gly Gly Pro Leu Ala
1235                115                   120                   125
1237 Ser Ala Val Trp Asn Met Thr Gly Ser His Gly Arg Gln Trp His Gln
1238       130                   135                   140
1240 Ala Glu Leu Ala Val Ser Thr Phe Trp Pro Asn Glu Tyr Gln Val Leu
1241 145                   150                   155                   160
1243 Phe Glu Ala Leu Ile Ser Pro Asp Arg Arg Gly Tyr Met Gly Leu Asp
1244                165                   170                   175
1246 Asp Ile Leu Leu Leu Ser Tyr Pro Cys Ala Lys Ala Pro His Phe Ser
1247                180                   185                   190
1249 Arg Leu Gly Asp Val Glu Val Asn Ala Gly Gln Asn Ala Ser Phe Gln
1250                195                   200                   205
1252 Cys Met Ala Ala Gly Glu Pro Met Arg Gln Arg Phe Leu Leu Gln Arg
1253       210                   215                   220
1255 Gln Ser Gly Ala Leu Val Pro Ala Gly Ala Phe Gly Thr Ser Ala Thr
1256 225                   230                   235                   240
1258 Gly Phe Leu Ala Thr Phe Pro Leu Ala Ala Val Ser Arg Ala Glu Gln
1259                245                   250                   255
1261 Asp Leu Tyr Arg Cys Val Ser Gln Ala Pro Arg Gly Gly Val Ser Asn
1262                260                   265                   270
1264 Phe Pro Glu Leu Ile Val Lys Glu Pro Pro Thr Pro Ile Ala Pro Pro
1265       275                   280                   285
1267 Gln Leu Leu Arg Ala Gly Pro Thr Tyr Leu Ile Ile Gln Leu Asn Thr
1268       290                   295                   300
1270 Asn Ser Ile Ile Gly Asp Gly Pro Ile Val Arg Lys Glu Ile Glu Tyr
1271 305                   310                   315                   320
1273 Arg Met Ala Arg Gly Pro Trp Ala Glu Val His Ala Val Ser Leu Gln
1274                325                   330                   335
1276 Thr Tyr Lys Leu Trp His Leu Asp Pro Asp Thr Asp Tyr Glu Ile Ser
1277       340                   345                   350
1279 Val Leu Leu Thr Arg Pro Gly Asp Gly Gly Thr Gly Arg Trp Ala Thr
1280       355                   360                   365
1282 Pro His Gln Pro His Gln Met Arg Arg Ala His Glu Gly Pro Lys Gly
1283       370                   375                   380
1285 Leu Ala Phe Ala Glu Ile Gln Ala Arg Gln Leu Thr Leu Gln Trp Glu
1286 385                   390                   395                   400
1288 Pro Leu Gly Tyr Asn Val Thr Arg Cys His Thr Tyr Thr Val Ser Leu
1289                405                   410                   415
1291 Cys Tyr His Tyr Thr Leu Gly Ser Ser His Asn Gln Thr Ile Arg Glu
1292                420                   425                   430
```

```
1294 Cys Val Lys Thr Glu Gln Gly Val Ser Arg Tyr Thr Ile Lys Asn Leu
1295         435                 440                 445
1297 Leu Pro Tyr Arg Asn Val His Val Arg Leu Val Leu Thr Asn Pro Glu
1298         450                 455                 460
1300 Gly Arg Lys Glu Gly Lys Glu Val Thr Phe Gln Thr Asp Glu Asp Val
1301 465                 470                 475                 480
1303 Pro Ser Gly Ile Ala Ala Glu Ser Leu Thr Phe Thr Pro Leu Glu Asp
1304                 485                 490                 495
1306 Met Ile Phe Leu Lys Trp Glu Glu Pro Gln Glu Pro Asn Gly Leu Ile
1307             500                 505                 510
1309 Thr Gln Tyr Glu Ile Ser Tyr Gln Ser Ile Glu Ser Ser Asp Pro Ala
1310         515                 520                 525
1312 Val Asn Val Pro Gly Pro Arg Arg Thr Ile Ser Lys Leu Arg Asn Glu
1313         530                 535                 540
1315 Thr Tyr His Val Phe Ser Asn Leu His Pro Gly Thr Thr Tyr Leu Phe
1316 545                 550                 555                 560
1318 Ser Val Arg Ala Arg Thr Gly Lys Gly Phe Gly Gln Ala Ala Leu Thr
1319             565                 570                 575
1321 Glu Ile Thr Thr Asn Ile Ser Ala Pro Ser Phe Asp Tyr Ala Asp Met
1322             580                 585                 590
1324 Pro Ser Pro Leu Gly Glu Ser Glu Asn Thr Ile Thr Val Leu Leu Arg
1325         595                 600                 605
1327 Pro Ala Gln Gly Arg Gly Ala Pro Ile Ser Val Tyr Gln Val Ile Val
1328         610                 615                 620
1330 Glu Glu Glu Arg Ala Arg Gly Cys Gly Gly Thr Arg Trp Thr Gly Leu
1331 625                 630                 635                 640
1333 Leu Pro Ser Ala Ile Asp Leu Arg Gly Gly Ala Gly Pro Arg Leu Val
1334             645                 650                 655
1336 His Tyr Phe Gly Ala Glu Leu Ala Ala Ser Ser Leu Pro Glu Ala Met
1337             660                 665                 670
1339 Pro Phe Thr Val Gly Asp Asn Gln Thr Tyr Arg Gly Phe Trp Asn Pro
1340             675                 680                 685
1342 Pro Leu Glu Pro Arg Lys Ala Tyr Leu Ile Tyr Phe Gln Ala Ala Ser
1343     690                 695                 700
1345 His Leu Lys Gly Glu Thr Arg Leu Asn Cys Ile Arg Ile Ala Arg Lys
1346 705                 710                 715                 720
1348 Ala Ala Cys Lys Glu Ser Lys Arg Pro Leu Glu Val Ser Gln Arg Ser
1349             725                 730                 735
1351 Glu Glu Met Gly Leu Ile Leu Gly Ile Cys Ala Gly Gly Leu Ala Val
1352             740                 745                 750
1354 Leu Ile Leu Leu Leu Gly Ala Ile Ile Val Ile Ile Arg Lys Gly Lys
1355         755                 760                 765
1357 Pro Val Asn Met Thr Lys Ala Thr Val Asn Tyr Arg Gln Glu Lys Thr
1358         770                 775                 780
1360 His Met Ile Ser Ala Val Asp Arg Ser Phe Thr Asp Gln Ser Thr Leu
1361 785                 790                 795                 800
1363 Gln Glu Asp Glu Arg Leu Gly Leu Ser Phe Met Asp Thr His Gly Tyr
1364             805                 810                 815
1366 Ser Thr Arg Gly Asp Gln Arg Ser Gly Gly Val Thr Glu Ala Ser Ser
```

```
1367            820              825              830
1369 Leu Leu Gly Gly Ser Pro Arg Arg Pro Cys Gly Arg Lys Gly Ser Pro
1370            835              840              845
1372 Tyr His Thr Gly Gln Leu His Pro Ala Val Arg Val Ala Asp Leu Leu
1373      850              855              860
1375 Gln His Ile Asn Gln Met Lys Thr Ala Glu Gly Tyr Gly Phe Lys Gln
1376 865              870              875              880
1378 Glu Tyr Glu Ser Phe Phe Glu Gly Trp Asp Ala Thr Lys Lys Lys Asp
1379            885              890              895
1381 Lys Val Lys Gly Ser Arg Gln Glu Pro Met Pro Ala Tyr Asp Arg His
1382            900              905              910
1384 Arg Val Lys Leu His Pro Met Leu Gly Asp Pro Asn Ala Asp Tyr Ile
1385            915              920              925
1387 Asn Ala Asn Tyr Ile Asp Gly Tyr His Arg Ser Asn His Phe Ile Ala
1388      930              935              940
1390 Thr Gln Gly Pro Lys Pro Glu Met Val Tyr Asp Phe Trp Arg Met Val
1391 945              950              955              960
1393 Trp Gln Glu His Cys Ser Ser Ile Val Met Ile Thr Lys Leu Val Glu
1394            965              970              975
1396 Val Gly Arg Val Lys Cys Ser Arg Tyr Trp Pro Glu Asp Ser Asp Thr
1397            980              985              990
1399 Tyr Gly Asp Ile Lys Ile Met Leu Val Lys Thr Glu Thr Leu Ala Glu
1400            995             1000             1005
1402 Tyr Val Val Arg Thr Phe Ala Leu Glu Arg Arg Gly Tyr Ser Ala Arg
1403      1010             1015             1020
1405 His Glu Val Arg Gln Ser His Phe Thr Ala Trp Pro Glu His Gly Val
1406 1025             1030             1035             1040
1408 Pro Tyr His Ala Thr Gly Leu Leu Ala Phe Ile Arg Arg Val Lys Ala
1409            1045             1050             1055
1411 Ser Thr Pro Pro Asp Ala Gly Pro Ile Val Ile His Cys Ser Ala Gly
1412            1060             1065             1070
1414 Thr Gly Arg Thr Arg Cys Tyr Ile Val Leu Asp Val Met Leu Asp Met
1415      1075             1080             1085
1417 Ala Glu Cys Glu Gly Val Val Asp Ile Tyr Asn Cys Val Lys Thr Leu
1418      1090             1095             1100
1420 Cys Ser Arg Arg Val Asn Met Ile Gln Thr Glu Glu Gln Tyr Ile Phe
1421 1105             1110             1115             1120
1423 Ile His Asp Ala Ile Leu Glu Ala Cys Leu Cys Gly Glu Thr Thr Ile
1424            1125             1130             1135
1426 Pro Val Ser Glu Phe Lys Ala Thr Tyr Lys Glu Met Ile Arg Ile Asp
1427           1140             1145             1150
1429 Pro Gln Ser Asn Ser Ser Gln Leu Arg Glu Glu Phe Gln Thr Leu Asn
1430      1155             1160             1165
1432 Ser Val Thr Pro Pro Leu Asp Val Glu Glu Cys Ser Ile Ala Leu Leu
1433      1170             1175             1180
1435 Pro Arg Asn Arg Asp Lys Asn Arg Ser Met Asp Val Leu Pro Pro Asp
1436 1185             1190             1195             1200
1438 Arg Cys Leu Pro Phe Leu Ile Ser Thr Asp Gly Asp Ser Asn Asn Tyr
1439            1205             1210             1215
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1441 Ile Asn Ala Ala Leu Thr Asp Ser Tyr Thr Arg Arg Ser Ala Phe Met
1442         1220                1225                1230
1444 Val Thr Leu His Pro Leu Gln Ser Thr Thr Pro Asp Phe Trp Arg Leu
1445         1235                1240                1245
1447 Val Tyr Asp Tyr Gly Cys Thr Ser Ile Val Met Leu Asn Gln Leu Asn
1448     1250                1255                1260
1450 Gln Ser Asn Ser Ala Trp Pro Cys Leu Gln Tyr Trp Pro Glu Pro Gly
1451 1265                1270                1275                1280
1453 Arg Gln Gln Tyr Gly Leu Met Glu Val Glu Phe Met Ser Gly Thr Ala
1454             1285                1290                1295
1456 Asp Glu Asp Leu Val Ala Arg Val Phe Arg Val Gln Asn Ile Ser Arg
1457         1300                1305                1310
1459 Leu Gln Glu Gly Asp Leu Leu Val Arg His Phe Gln Phe Leu Arg Trp
1460         1315                1320         .       1325
1462 Ser Ala Tyr Arg Asp Thr Pro Asp Ser Lys Lys Ala Phe Leu His Leu
1463     1330                1335                1340
1465 Leu Ala Glu Val Asp Lys Trp Gln Ala Glu Ser Gly Asp Gly Arg Thr
1466 1345                1350                1355                1360
1468 Ile Val His Cys Leu Asn Gly Gly Gly Arg Ser Gly Thr Phe Cys Ala
1469             1365                1370                1375
1471 Cys Ala Thr Val Leu Glu Met Ile Arg Cys His Asn Leu Val Asp Val
1472         1380                1385                1390
1474 Phe Phe Ala Ala Gln Thr Leu Arg Asn Tyr Lys Pro Asn Met Val Glu
1475         1395                1400                1405
1477 Thr Met Asp Gln Tyr His Phe Cys Tyr Asp Val Ala Leu Glu Tyr Leu
1478     1410                1415                1420
1480 Glu Gly Leu Glu Ser Arg
1481 1425                1430
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/087,993A

DATE: 08/06/2004
TIME: 14:12:10

Input Set : A:\Sequence Listing.app
Output Set: N:\CRF4\08062004\J087993A.raw

L:61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:1209 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:34
L:1212 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:34